

CONNECTICUT STATE EMPLOYEES
RETIREMENT SYSTEM

June 30, 1988
ACTUARIAL VALUATION

MILLIMAN & ROBERTSON, INC.
CONSULTING ACTUARIES

THREE CORPORATE PLACE
BLOOMFIELD, CONNECTICUT 06002
203/243-1138

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July 3, 1989

State of Connecticut
State Employees Retirement Commission
55 Elm Street
Hartford, CT 06106

Ladies and Gentlemen:

We are pleased to provide this actuarial report for the Connecticut State Employees Retirement System. The report shows the financial status of the system as of June 30, 1988 and presents cost figures for the fiscal year beginning July 1, 1989 under two very different actuarial funding methods.

As summarized in Section I, the recommended contribution for the fiscal year beginning July 1, 1989, including Federal reimbursements, is \$396,368,471 under the Entry Age Normal Method that has been utilized since 1971, and \$354,399,356 under the Projected Unit Credit Method.

Both actuarial funding methods are among those deemed acceptable by the American Academy of Actuaries. The Projected Unit Credit Method is in fact the funding method stipulated by the Financial Accounting Standards Board for reporting corporate pension expense; however, FASB uses this method together with a requirement that Past Service be amortized over the employee's average remaining work-life (about 12-15 years!).

Going forward, the Projected Unit Credit funding costs:

1. Can be expected to be less than Entry Age Normal for the near future. This means there will be a lower benefit security ratio for plan participants than would result from the Entry Age Normal Method. The 1988 benefit security ratio, (per GASB #5 Report) was 50.0%.
2. Are likely to increase more rapidly than the Entry Age Normal method until, at some point as remote as 20 years from now or as close as 10 years, the costs are actually greater than Entry Age Normal. Projected Unit Credit effectively spreads more of the costs onto future generations.
3. Will fluctuate more widely from year to year than the Entry Age Normal method because it is more sensitive to changes in the average age of the Members and is just as sensitive to changes in salaries and investment results and the relative number of Tier I vs. Tier II members.

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July 3, 1989

Most state plans that we are aware of use the Entry Age Normal.

In our opinion this report fairly presents the financial and actuarial position of the Connecticut State Employees Retirement System as of June 30, 1988, in accordance with generally accepted actuarial principles for the two funding methods.

Respectfully submitted,


James A. Gobes, F.S.A.
Consulting Actuary

JAG/cac CSE1;cse,annrpt

cc: JoAnn Mogensen

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CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM

SECTION I

SUMMARY OF JUNE 30, 1988 ENTRY AGE NORMAL &
PROJECTED UNIT COST VALUATIONS

A. Highlights

Use of the Projected Unit Credit Funding Method would reduce the recommended contribution for Fiscal Year 1989 from \$396,368,471 to \$354,399,356, a net reduction of \$41,969,115. The past service cost decreased by more than \$61 million (more than the previous estimate of \$55 million because the earlier figure was based on the 6-30-88 Unfunded rather than the projected 6-30-89 Unfunded). At the same time, the Current Cost increased by almost \$20 million.

Under either funding method, the Past Service Payment should remain at approximately the same dollar level (and thus become a reducing percentage of pay). The Entry Age Normal Cost could be expected to remain at approximately the same 8% of covered earnings. However, the Projected Unit Credit Current Cost can be expected to increase as a percent of covered earnings.

(Throughout the report references to "Normal Cost" refer to the Entry Age Normal Cost and references to "Current Cost" refer to the Projected Unit Credit Current Cost.)

SECTION I

B. Actuarial Balance Sheet

Based on the membership and asset information provided to us (and summarized in Sections III and IV), the actuarial assumptions described in Section IIB, and our understanding of the benefit provisions embodied in Connecticut statutes as summarized in Section VI, we have prepared the following valuation of assets and liabilities as of June 30, 1988 under the two funding methods described in Section IIA:

<u>ASSETS</u>	<u>Entry Age Normal</u>	<u>Projected Unit Credit</u>
Retirement Fund		
(Adjusted basis)	\$2,189,510,979	\$2,189,510,979
Present value of future Normal		
Cost contributions	1,516,952,265	NA
Unfunded Accrued Liability	<u>3,038,944,828</u>	<u>2,361,144,243</u>
TOTAL ASSETS	\$6,745,408,072	\$4,550,655,222
<u>LIABILITIES</u>		
Present value of benefits*		
Active Members		
Tier I	\$4,330,554,186	\$2,560,196,252
Tier II	537,239,069	112,844,153
Retired Members	1,867,349,142	1,867,349,142
Terminated Vested Members	<u>10,265,675</u>	<u>10,265,675</u>
TOTAL LIABILITIES	\$6,745,408,072	\$4,550,655,222

* Accrued projected benefits for Projected Unit Credit.

SECTION I

C. Projection of Normal & Current Costs

The valuation calculated Normal Costs as of July 1, 1988 based on earnings as of that date, including adjustments for negotiated settlements and for July 1 increases. Earnings were projected to July 1, 1989 by assuming that 6% of the Tier I employees will terminate during the twelve month period and be replaced by Tier II employees at 75% of the terminated employee's earnings level; remaining Tier I employees and all Tier II employees (including replacements of Tier II terminations) are assumed to receive increases as of July 1, 1989 equal to 10%. This produced the following projected Normal Costs:

Plan	Estimated Earnings 7/1/88	Normal Cost %	Current Cost %	Projected Earnings 7/1/89	Normal Cost 7/1/89
<u>Tier I</u>					
HD	\$ 104,987,808	15.5882%	15.8785%	\$ 108,557,394	\$ 16,922,144
B	907,187,644	7.2853	10.8249	938,032,024	68,338,447
C	<u>106,122,491</u>	7.1806	9.9465	<u>109,730,656</u>	<u>7,879,319</u>
Total					
Tier I	\$1,118,297,943			\$1,156,320,074	\$ 93,139,910
<u>Tier II</u>					
HD	\$ 47,204,074	14.9638%	10.8639%	\$ 56,648,933	\$ 8,476,833
Other	<u>417,472,193</u>	7.1144	4.3646	<u>504,818,368</u>	<u>35,914,798</u>
Total					
Tier II	\$ 464,676,267			\$ 561,467,301	\$ 44,391,631
<u>Grand</u>					
Total	\$1,582,974,210		9.1454%	\$1,717,787,375	\$137,531,541
<u>Current Cost</u>					
Total 1988 Earnings				\$1,582,974,210	
Total Projected Earnings				\$1,717,787,375	
Aggregate Current Cost Percentage				9.1454%	
1988 Current Cost				\$ 144,769,323	
1989 Current Cost				\$ 157,099,229	

SECTION I

D. Projection of Total Cost

The Unfunded Liability as of the valuation date (the beginning of the fiscal year) was brought forward to the end of the fiscal year by adding interest and the fiscal year Normal or Current Cost, with interest, and subtracting expected contributions, also with interest:

<u>Development of Unfunded</u>	<u>Entry Age</u> <u>Normal</u>	<u>Projected</u> <u>Unit Credit</u>
Unfunded Accrued Liability, 7-1	\$3,038,944,828	\$2,361,144,243
+ Interest	258,310,310	200,697,261
+ Normal (or Current) Cost	125,118,568	144,769,323
+ Interest	4,802,676	5,556,946
- State Payments	325,062,591	325,062,591
- Federal Payments	49,252,115	49,252,115
- Employee Contributions	29,868,267	29,868,267
- Interest	<u>15,514,563</u>	<u>15,514,563</u>
Unfunded Accrued Liability, 6-30	\$3,007,478,846	\$2,292,470,237
Amortization Period	37 years	37 years

<u>Summary of Costs</u>		
Normal (or Current) Cost	\$ 137,531,541	\$ 157,099,229
Amortization of Unfunded	<u>258,836,930</u>	<u>197,300,127</u>
Total Cost	\$ 396,368,471	\$ 354,399,356
Total Cost (as a percent of payroll)	23.07%	20.63%

CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM

SECTION II

ACTUARIAL METHOD AND ASSUMPTIONS

A. Funding Method

1. Through the 1988 valuation, the actuarial valuation method used in the cost calculations was the Entry Age Normal Cost Method. This valuation was done on both the Entry Age Normal and the Projected Unit Credit Cost Method. Recommended annual contributions until the accrued liability is completely funded will consist of two pieces: Normal (or Current) Cost plus a payment towards the Unfunded Accrued Liability.
2. Under the Entry Age Normal Method:
 - a. The Normal Cost is determined by calculating the present value of future benefits for present active Members that will become payable as the result of death, disability, retirement or termination. This cost is then spread as a level percentage of earnings from entry age to termination as an Active Member.
 - b. If Normal Costs had been paid at this level for all prior years, a fund would have been accumulated. Because this fund represents the portion of benefits that would have been funded to date, it is termed the Accrued Liability. In fact, it is calculated by adding the present value of benefits for retired Members and Terminated Vested Members to the present value of benefits for active Members and subtracting the present value of future contributions.
3. Under the Projected Unit Credit Cost Method:
 - a. The Accrued Liability is determined directly as the present value of benefits accrued to date, where the accrued benefits for each Member is the pro-rata portion (based on service to date) of the projected benefit payable at death, disability, retirement or termination.

SECTION II

A. Funding Method (cont'd)

- b. The Current Cost is then similarly determined as the present value of the portion of the projected benefit attributable to the current year.
4. The Unfunded Accrued Liability is the Accrued Liability less Current Assets.
5. Since both valuations were done as of June 30, 1988, costs have been projected to July 1, 1989 in order to correspond to the fiscal year as follows:
 - a.1. Entry Age Normal costs were determined as a percentage of earnings, by Tier, as of July 1, 1988. Earnings were projected to July 1, 1989, separately for each Tier because of the shifting Tier populations, and the projected earnings were then multiplied by the normal cost factors, by Tier.
 - a.2. Because Unit Credit Costs increase as the group ages, the Projected Unit Credit Current Cost was determined as of July 1, 1988 and projected in aggregate by increasing in proportion to the total increase in earnings.
 - b. The Unfunded Accrued Liability was determined as of June 30, 1988, and brought forward to June 30, 1989 by adding the Normal (or Current) Cost plus interest and subtracting expected employee, State, and Federal contributions, also with interest. This amount in both cases was amortized over the 37 years remaining in the original 40 year amortization period.
 - c. Normal (or Current) Cost and Past Service Amortization payments were adjusted to reflect payment in twelve equal installments at the end of each month.

SECTION II

B. ACTUARIAL ASSUMPTIONS

The same assumptions were used in both the Entry Age Normal and the Projected Unit Credit valuations:

Mortality: 1983 Group Annuity Mortality Table with
ages set back 4 years for females.

Investment
Return: 8½%.

Salary Scale:

<u>Age</u>	<u>Annual Rate of Increase</u>
20	10.2%
25	9.2
30	8.1
35	7.1
40	6.5
45	6.0
50	6.0
55	6.0
60	6.0

Disability:

<u>Age</u>	<u>Annual Rate of Disability (Per 1000 Lives)</u>
20	0.75
25	0.85
30	0.97
35	1.21
40	1.70
45	2.79
50	5.09
55	9.25
60	14.42

Service connected are assumed
to comprise 50% of total
Disability for Hazardous Duty
and 20% for others.

SECTION II

B. ACTUARIAL ASSUMPTIONS (cont'd)

Social Security Wage Base
Increases:

3½% compounded annually.

Retirement Ages: Hazardous Duty:

<u>Age</u>	<u>First Year Eligible</u>	<u>Thereafter</u>
47-50	50%	10%
51	48	10
52	46	10
53	44	10
54	42	10
55	40	10
56	38	10
57	36	10
58	34	10
59	30	10
60	50	30
61	50	30
62-70	100	100

All Others:

55-60	20%	5%
61	40	5
62	40	30
63	40	30
64	60	30
65	80	60
66	80	60
67	80	60
68	80	60
69	80	60
70	100	100

SECTION II

B. ACTUARIAL ASSUMPTIONS (cont'd)

Turnover:

Five year select and ultimate rates as shown in the Turnover Table below for non-hazardous duty males; the same table with rates increased 10% for females; the same table with rates reduced 50% for hazardous duty males.

Turnover Table

Age	Years of Participation					
	0	1	2	3	4	5 & Over
20	50%	45%	30%	25%	20%	15%
25	45	35	30	25	20	10
30	40	30	25	20	15	8
35	35	28	20	15	10	6
40	30	20	10	8	6	4
45	20	10	8	6	4	2
50	10	8	6	4	2	0
55	10	7	5	2	0	0
60	10	0	0	0	0	0

Cost of Living
Increases:

3% per year for retirees on or after 1-1-80.
4½% per year for retirees prior to 1-1-80.

Asset Valuation:

Adjusted market value: assets are written up (or down) by spreading recognition of gains and losses over five years, plus an additional write-up (or write-down) as necessary so that the final adjusted value is within 20% of market value.

CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM

SECTION III

MEMBERSHIP DATA

A. Active Members

We received data on a total of 55,568 members, including employees of State Aided Institutions. The following analysis compares this data with the July 1, 1987 data (see Exhibit B for distribution by age and service).

	<u>7-1-87</u>	<u>7-1-88</u>	<u>Change</u>	<u>Per Cent Change</u>
Total Employees	52,984	55,568	+2,584	+ 4.9%
Total Earnings (millions)	\$ 1,429.1	\$ 1,583.0	+\$ 153.9	+10.8%
Average Earnings	\$26,972	\$28,487	+1,515	+ 5.6%

Of the active records submitted to us, 242 were rejected due to missing or invalid dates of birth and/or hire. Cost calculations were done using the valid records and then adjusted proportionately for the rejected records.

Earnings figures as of July 1 are actual amounts paid during the previous July 1 to June 30 period, adjusted for negotiated increases and merit adjustments effective through and including July 1; new entrant earnings are annualized.

SECTION III

B. Actives By Plan

	<u>7-1-87</u>	<u>7-1-88</u>	<u>Change</u>	<u>Per Cent Change</u>
<u>Number of Members</u>				
Hazardous Duty	4,126	4,451	+ 325	+ 7.9%
Plan B	28,468	26,981	-1,487	- 5.2
Plan C	4,083	3,632	- 451	- 11.0
Tier II	16,307	20,504	+4,197	+ 25.7
 <u>Total Annual Compensation (millions)</u>				
Hazardous Duty	\$ 135.9	\$152.2	+\$16.3	+ 12.0%
Plan B	878.5	907.2	+ 28.7	+ 3.3
Plan C	109.7	106.1	- 3.6	- 3.3
Tier II	305.0	417.5	+112.5	+ 36.9
 <u>Average Compensation</u>				
Hazardous Duty	\$ 32,938	\$34,194	+\$1,256	+ 3.8%
Plan B	30,858	33,623	+ 2,765	+ 9.0
Plan C	26,873	29,219	+ 2,346	+ 8.7
Tier II	18,703	20,360	+ 1,657	+ 8.9

Hazardous Duty Members include 1,746 Tier II Members, compared to 1,209 last year. Because of their higher average age, Plan C continues to decrease more rapidly than Plan B.

SECTION III

B. Actives By Plan (cont'd)

This analysis of age and service excludes the 242 records with incorrect birth dates or hire dates and 15 vending stand operators, data for which was received after this analysis was completed.

	<u>7-1-87</u>	<u>7-1-88</u>	<u>Change</u>
<u>Average Age</u>			
Hazardous Duty	37.7	37.3	- 0.4
Plan B	44.0	44.6	+ 0.6
Plan C	54.0	54.2	+ 0.2
Tier II	34.6	35.0	+ 0.4

Average Years of Service

Hazardous Duty	9.0	8.7	- 0.3
Plan B	12.7	13.6	+ 0.9
Plan C	14.3	15.1	+ 0.8
Tier II	1.9	2.3	+ 0.4

SECTION III

C. Retired and Terminated Vested Members

The following compares the current retired data with the June 30, 1987 data. [See Exhibit C for analysis of retirees by age, year of retirement and type of retirement].

	<u>6-30-87</u>	<u>6-30-88</u>	<u>Change</u>	<u>Per Cent Change</u>
<u>Pensioners</u>				
Number	18,761	19,420	+ 659	+ 3.5%
Total Annual Benefit*	\$158,494	\$176,838	+\$18,344	+11.6
Average Monthly Benefit	\$ 704	\$ 759	+\$ 55	+ 7.8
<u>Beneficiaries</u>				
Number	749	845	+ 96	+12.8%
Total Annual Benefit*	\$ 5,259	\$ 6,030	+\$771	+14.7
Average Monthly Benefit	\$ 585	\$ 595	+\$ 10	+ 1.7
<u>Terminated Vested</u>				
Number	554	638	+ 84	+15.2%

* (000 omitted)

CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM

SECTION IV

RETIREMENT FUND

A. Summary of Fund

Market Value, July 1, 1987	\$2,006,924,563
Prior Year Adjustment	(3,843,738)

Contributions

State	\$272,297,993	
Federal	49,252,115	
Employee	<u>28,025,025</u>	
		\$ 349,575,133

Investment Income

Interest and Dividends	\$151,410,683	
Realized Gains	205,394,743	
Change in Unrealized Gains	<u>(261,372,286)</u>	
		\$ 95,433,140

Disbursements

Benefit payments	\$172,106,035	
Employee refunds	2,679,972	
Expenses	<u>151,166</u>	
		\$ 174,937,173

Market Value, June 30, 1988	\$2,273,151,925
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SECTION IV

B. June 30, 1988 Assets

The following is the Market Value of the State Employees Retirement Fund assets as reported to us by the Retirement Division:

Cash \$ -22,418,320.34

Accrued Interest \$ 6,111,612.32

Investments

Short Term \$146,835,725.00

Fixed Income 742,634,764.06

Equity 923,486,451.63

Contract 10,971,998.95

Mortgage 12,899,202.49

Real Estate 329,742,458.28

International Funds 38,227,617.32

Commercial Mortgage Fund 33,737,527.76

Venture Capital Fund 6,086,246.68

\$2,244,621,992.17

Total Market Value of Assets June 30, 1988 \$2,273,151,924.83

SECTION IV

C. Adjusted Market Value

<u>Year Ending</u>	<u>Realized Gains/Losses</u>	<u>Change in Unrealized Gains/Losses</u>	<u>Total Gains/Losses</u>
6-30-88	\$205,394,743	\$(261,372,286)	\$(55,977,543)
6-30-87	2,414,092	52,019,533	54,433,625
6-30-86	10,589,632	177,973,874	188,563,506
6-30-85	2,560,935	99,126,081	101,687,016
6-30-84	2,357,847	(16,194,782)	(13,836,935)

1988 Adjusted Market Value is derived as follows:

1. Market Value of Assets 6-30-88:	\$2,273,151,925
2. 5-Year Gains and Losses Not Yet Recognized:	
80% of FY 88 (44,782,034)	
60% of FY 87 32,660,175	
40% of FY 86 75,425,402	
20% of FY 85 <u>20,337,403</u>	
	\$ 83,640,946
3. 20% of (1)	\$ 454,630,385
4. Adjusted Market Value of Assets 6-30-88:	\$2,189,510,979
(1) - (2), within (1) ± (3)	

CONNECTICUT STATE EMPLOYEES RETIREMENT SYSTEM

SECTION V

SUMMARY OF PLAN PROVISIONS

Effective Date

September 1, 1939

System Eligibility

Tier I

[Sec. 5-160]

Each state employee appointed to classified service shall become a member on the first day of the pay period following permanent appointment.

Each officer elected by the people and each appointee of such officer exempt from classified service may elect to become a member, effective on the first day of the pay period following receipt of such election.

Each other state employee exempt from classified service shall become a member on the first day of the pay period following six months of employment.

Tier II [Sec. 23]

Each state employee becomes a member on the first day of employment.

Plan Eligibility

Tier I [Sec. 6]

Except as noted below employees hired prior to January 1, 1984 could elect (no later than January 2, 1984) to be covered under either Plan B or Plan C. Employees under contracts with Union Independent and CSEA unions hired prior to October 1, 1982 had until October 1, 1984 to make such election.

Tier II [Sec. 23]

Employees first joining the retirement system on or after January 1, 1984 plus employees hired between July 1, 1982 and January 1, 1984 who elected Tier II.

Normal Retirement Date

State Police [Sec. 5-173 as amended by Sec. 17]

Age 47 and 20 years of service.

Tier I
[Sec. 5-162]

Age 55 and 25 years of service, age 60 and 10 years of service, or age 70.

Tier II [Sec. 28 & 30]

Age 65 and 10 years of service or age 70 and 5 years of service, except hazardous duty members may retire after 25 years.

Normal Retirement Benefit

State Police [Sec. 5-173 as
amended by Sec. 17]

50% of Final Average Earnings plus 2%
for each year in excess of 20.

Tier I, Plan B
Benefit [Sec. 5-162]
Minimum [Sec. 10]

Same as Plan C up to age 65; thereafter
1% of Final Average Earnings up to
\$4,800 plus 2% of Final Average
Earnings in excess of \$4,800 times
years, reduced for retirement prior to
age 65 with less than 25 years.
Minimum benefit with 25 years, \$300 per
month.

Tier I, Plan C
Benefit [Sec. 5-162]
Minimum [Sec. 10]

2% of Final Average Earnings times
years of service, reduced for
retirement prior to age 65 with less
than 25 years. Minimum with 25 years,
\$300 per month.

Tier II
Hazardous Duty Members
[Sec. 30]

2% of Final Average Earnings times
years of service. Minimum with 25
years, \$300 per month (or less if
retirement before 7-1-87).

All Other [Sec. 28]

1 1/3% of Final Average Earnings plus
1/2% of Final Average Earnings in excess
of the year's breakpoint*, times years
of service from 10-1-82. Minimum with
25 years, \$300 per month (or less if
retirement before 7-1-87).

* \$10,700 increased by 6% each year after 1982, rounded to the nearest \$100.

Early Retirement

State Police

None.

Tier I
[Sec. 5-162]

Age 55 and 10 years of service; Normal Retirement Benefit reduced actuarially for retirement prior to age 60.

Tier II [Sec. 29]

Age 55 and 10 years of service; Normal Retirement Benefit reduced $\frac{1}{2}\%$ for each month prior to age 65; Minimum benefit with 25 years, \$300 per month (or less if retirement prior to 7-1-87).

Deferred Retirement

Tier I
[Sec. 5-162]

May be deferred but not beyond age 70.

Tier II [Sec. 28 (b) and (e)]

May be deferred but not beyond age 70.

Benefit is based on salary and service to actual retirement.

Vesting

Tier I
[Sec. 5-166 as amended in
part by Sec. 13]

Ten years of service; actuarially reduced benefit payable at age 55; in addition employees are always fully vested in their own contributions (after 1-1-83, Tier I, contributions with 5% interest from 1-1-82).

Tier I, Hazardous Duty
[Sec. 17]

As above, but may receive full benefits at age 47 if 20 years of service at termination.

Tier II [Sec. 31]

Ten years of service or age 70 and 5 years; benefit payable at age 65 or early retirement benefit payable at age 55; minimum benefit with 25 years, payable after age 55, \$300 per month (or less if retirement before 7-1-87).

Employee Contributions

State Police, Hazardous Duty
[Sec. 5-161]

5% of earnings.

Plan C [Sec. 5-161]

5% of earnings.

Plan B [Sec. 5-161]

2% of earnings up to Social Security Taxable Wage Base plus 5% above that level.

Tier II [Sec. 37]

None.

Cost of Living

[Sec. 5-162b, 5-162d,
Sec. 9 & Sec. 35]

Annual adjustment each July 1 of up to 5% for retirements prior to 7-1-80; 3% for retirements after 7-1-80. For members (or beneficiaries) not covered by Social Security and age 62 and over, the maximum increase is 6%. If an actuarial surplus (as defined in the law) exists, the commission may further increase retired benefits.

Death Benefits

State Police
[Sec. 5-146]

Survivor benefits to spouse of \$550 per month plus \$250 to a surviving dependent child (or \$575 to surviving dependent children).

Tier I
[Sec. 5-165a as amended
by Sec. 12]

If eligible for early or normal retirement, spouse benefit equal to 50% of average of Life Benefit and 50% J&S benefit member would have received. If not eligible to retire but 25 years, same benefit calculated as though age 55 using service and earnings at death.

[Sec. 5-168 as amended
by Sec. 13]

If not eligible for retirement, return of contributions (after 10-1-82, Tier I, with interest from 1-1-82 at 5%).

Tier II [Sec. 34]

If eligible for early or normal retirement, spouse benefit equal to 50% of member's benefit under a 50% J&S. If not eligible to retire but 25 years, same benefit calculated as though age 55 using service and earnings at death.

[Sec. 36]

If death is due to employment, a spouse with dependent child(ren) under 18 will be paid \$7,500 in not less than 60 installments while living and not remarried; also \$20 per month per child under 18. If no children under 18, spouse [or dependent parent(s), if no spouse] will be paid \$4,000 in not less than 60 installments.

Disability Benefits

Tier I [Sec. 16]

For non-service disabilities occurring prior to age 60 and after 5 years of service, benefit equals 3% times base salary times years of service (Maximum $1 \frac{2}{3}\%$ times service to 65). If disability occurs prior to age 60 and is due to service, benefit equals $1 \frac{2}{3}\%$ of salary times service projected to 65 (maximum 30 years) and is payable regardless of length of service. Exception: State Police benefit is accrued benefit.

Maximum disability benefit is lesser of: 100% of salary less Workers Compensation and Social Security and less non-rehabilitation earnings or 80% of salary less Workers Compensation and Social Security. Social Security is primary plus family.

Tier II [Sec. 32]

Prior to age 65 and due to service or after 10 years of service, benefit is $1 \frac{1}{3}\%$ of final average earnings, plus $\frac{1}{2}\%$ of excess earnings times service projected to 65 (maximum 30 years or service to Date of Disability if greater than 30 years). Same maximum as Tier I.

Options

Tier I [Sec. 11]

50% Qualified Joint and Survivor (CA)¹.

Tier II [Sec. 33]

50% or 100% Joint and Survivor (CA).

Ten years certain and life.

Twenty years certain and life.

Life².

¹ Normal Form if married at least 12 months.

² Normal Form if not married at least 12 months.

Part-Time Employment

[Sec. 5-162g & Sec. 27]

Service treated as if full-time for eligibility. If consistent part-time for all periods, treat as full-time. If varying schedule or some part-time, some full-time, service and salary proportionately adjusted.